Title (en)

EPOXY RESIN COMPOSITION, PREPREG AND FIBER-REINFORCED COMPOUND MATERIAL

Title (de)

EPOXIDHARZZUSAMMENSETZUNG, PREPREG UND FASERVERSTÄRKTES VERBUNDMATERIAL

Title (fr)

COMPOSITION DE RÉSINE ÉPOXY, PRÉIMPRÉGNÉ, ET MATÉRIAU CONSTITUÉ D'UN COMPOSÉ RENFORCÉ PAR DES FIBRES

Publication

EP 2623533 A1 20130807 (EN)

Application

EP 11829007 A 20110926

Priority

- JP 2011047407 A 20110304
- JP 2011047406 A 20110304
- JP 2010216633 A 20100928
- JP 2010216632 A 20100928
- JP 2011071842 W 20110926

Abstract (en)

An epoxy resin composition containing an epoxy resin [A1], epoxy resin [B1], epoxy resin [C1] and curing agent [D] wherein [A1] is a bisphenol-type epoxy resin with a softening point of 90 °C or more, [B1] is a tri- or higher functional amine-type epoxy resin, [C1] is a bisphenol F-type epoxy resin with a number average molecular weight of 450 or less, and the epoxy resins [A1] to [C1] satisfy the following contents per 100 parts by mass of total epoxy resin content: [A1] 20 to 50 parts by mass, [B1] 30 to 50 parts by mass and [C1] 10 to 40 parts. The present invention provides low-viscosity epoxy resin compositions that are excellent in impregnating reinforcing fibers and capable of producing cured resins with excellent modulus and toughness, as well as prepregs and fiber-reinforced composite materials based on those epoxy resin compositions.

IPC 8 full level

C08G 59/32 (2006.01); **C08G 59/50** (2006.01); **C08J 5/24** (2006.01)

CPC (source: EP KR US)

C08G 59/3245 (2013.01 - EP KR US); **C08G 59/38** (2013.01 - EP KR US); **C08G 59/50** (2013.01 - KR); **C08J 5/243** (2021.05 - EP KR US); **C08J 5/249** (2021.05 - EP KR US); **C08L 63/00** (2013.01 - EP KR US); C08J 2363/00 (2013.01 - EP KR US); C08L 2205/02 (2013.01 - EP KR US)

Cited by

EP3339356A1; EP3974466A4; EP3974467A4; US11161950B2; US11840612B2

Designated contracting state (EPC)

AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)

EP 2623533 A1 20130807; **EP 2623533 A4 20171018**; **EP 2623533 B1 20200429**; CA 2811881 A1 20120405; CN 103140536 A 20130605; CN 103140536 B 20150923; KR 101569595 B1 20151116; KR 20130108351 A 20131002; RU 2013119741 A 20141110; TW 201224048 A 20120616; TW I513755 B 20151221; US 2013217805 A1 20130822; US 9738782 B2 20170822; WO 2012043453 A1 20120405

DOCDB simple family (application)

EP 11829007 A 20110926; CA 2811881 A 20110926; CN 201180047158 A 20110926; JP 2011071842 W 20110926; KR 20137009295 A 20110926; RU 2013119741 A 20110926; TW 100134751 A 20110927; US 201113823004 A 20110926